An early report from a systematic research mapping of the international research of effects on pupils of inclusion/inclusive measures

Danish Clearinghouse for Educational Research

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Aim, scope and methodology
The research map
Relevance
The prospects for a synthesis
Danish Clearinghouse for Educational Research is a center which:

* collects
* screens
* analyses
* appraises
* synthetises and
* distributes
Danish Clearinghouse for Educational Research works with:

* ___________

*Primary research*, which throws light on problems from practice, policy, research or research policy.
Review question

* What is the overall effect of including children with special needs in primary and lower secondary regular classes and which pedagogical methods are used and have a positive effect?
The scope

* 

- overall effect
- inclusion
- special need pupils
- regular classes
- pedagogical methods
- positive effect
- language, publication year and geography
- relevant research
How does Clearinghouse work?

* In co-operation with a Review Group the Clearinghouse Staff execute iteratively transparent decisions/actions on these items:

1. Review question
2. Search strategies
3. Criteria of inclusion/exclusion
4. Redescription and data extraction of studies
5. Evidence weight of studies
6. Research mapping
7. Answer review question in a synthesis
The systematic review process: from search hits to policy implications

Search hits identified → 10943 references

Duplicates → 449 referencers

Reference screening → 9989 references excluded

Screening of title and abstract

1. phase

Included documents → 505 documents included

Accessed documents

2. Phase full text screening

87 documents excluded

3. Phase final review scope

Included documents → 73 documents included which refer to 65 studies

Redescription data extraction assignment of evidence weight to 65 studies

Systematic Mapping of 65 studies

Narrative synthesis Based on 43 studies

22 studies with low evidence weight

Implications for practice, policy and research
## Research Map: studies, effects, pupils

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scholastic achievement</td>
<td>Social competence, social attitudes</td>
<td>Both A and B</td>
<td>Either A or B</td>
</tr>
<tr>
<td>1</td>
<td>Pupils with special needs</td>
<td>124</td>
<td>196</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Ordinary pupils in schools where inclusion takes place</td>
<td>61</td>
<td>87</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Both 1 and 2</td>
<td>50</td>
<td>74</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>Either 1 or 2</td>
<td>135</td>
<td>209</td>
<td>65</td>
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</tbody>
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The research map: Evidence weight

<table>
<thead>
<tr>
<th>Number of studies</th>
<th>High evidence weight</th>
<th>Medium evidence weight</th>
<th>Low evidence weight</th>
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<tbody>
<tr>
<td></td>
<td>18</td>
<td>25</td>
<td>22</td>
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## Research designs

<table>
<thead>
<tr>
<th>Research Design</th>
<th>Pupils with special needs</th>
<th>Ordinary pupils</th>
<th>Total</th>
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<tbody>
<tr>
<td>Case study</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Cohort study</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Case-control study</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Cross-sectional study</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Ethnography</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Document study</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Experiment with non-random allocation to groups</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Longitudinal study</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>One group pre-post test</td>
<td>11</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Random experiment with random allocation to groups</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Systematic review</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>View study</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>26</strong></td>
<td><strong>82</strong></td>
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</tbody>
</table>
Curriculum scope

<table>
<thead>
<tr>
<th></th>
<th>Pupils with special needs</th>
<th>Ordinary pupils</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusion in 1-2 school subjects</td>
<td>18</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td>Inclusion in more or all school subjects</td>
<td>14</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Not relevant/ no information</td>
<td>10</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>19</td>
<td>61</td>
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</tbody>
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Relevance

Figur 1. Udgifterne til ekskluderende specialundervisning som andel af de samlede udgifter på folkeskoleområdet, 1995-2010
Number of Danish children prescribed ADHD medicin

Note: Tallene dækker over receptsalg af ADHD-medicin til enkeltpersoner. Medicinen bruges også for en mindre dels vedkommende til behandling af narkolepsi.

Kilde: Momentum på baggrund af www.medstat.dk
ADHD medication
5-9 year olds per 1000
2010
A glance at the preliminary results.....
A tentative look at the themes for the synthesis….

Several studies describe the effects on pupils with special needs and ordinary students in inclusive and non-inclusive settings.

An example:

Some of the findings suggest that the inclusion of pupils with SEN in primary schools can have a positive impact on the achievement of their mainstream peers.

Kalambouka, A. et al, 2005
A tentative look at the themes for the synthesis....

The relationship between behavioural problems and (low) academic achievement.

An example:
The results suggest a positive correlation of 0.40 between improvement in problem behaviour and academic achievement.

Morgen, C. et al, 2011
A tentative look at the themes for the synthesis….

Several studies look at the effect of co-teaching in inclusive classrooms.

An example:  
One possible reason for these positive outcomes may be that the members of the collaborative team had time to reflect together on an ongoing basis.

Hint, P. et al, 2001
A tentative look at the themes for the synthesis....

Several studies look at the effect of peer assisted learning in inclusive classrooms.

An example:
...the study points at Peer Assisted Learning Strategies (PALS) as an intervention to strengthen the outcome of lower gaining segment in the class in general...as students learn to work together across abilities.

The research

- Less than 3% of the research in the inclusion field is directed at researching effects.

- A major part of the included studies have a small sample.
Informing daily pedagogical practice

* Inclusion is a very complex field.

Policy makers, municipalities, school leaders and teachers need to know: What works?